

“Draft”) in view of U.S. Pat. No. 5,311,516 to Kuznicki *et al.* (hereinafter “Kuznicki”).

Applicant respectfully traverses the rejection.

In particular, Applicant submits that the combination of applied references fails to disclose or suggest a method for parsing multiple-frame protocol messages comprising, *inter alia*, the steps of receiving a frame of data from a remote ATU, wherein the frame of data contains a segment of a multi-frame protocol message, inserting the information contained within the frame into a data buffer, determining whether the data in the data buffer constitutes a complete message, sending a continuation message to the remote ATU if it is determined that the data in the data buffer does not constitute a complete message and, extracting the complete message from the data buffer if it is determined that that the data in the data buffer does constitute a complete message, as recited in independent claim 1 and similarly recited in independent claims 6 and 11.

In contrast to claims 1, 6 and 11, § 10.3 of Draft teaches that the maximum number of octets in any frame shall be 64. If a message exceeds this limit, the remainder of the message may be contained in subsequent frames. Whether or not the message exceeds 64 octets, it may be split into segments. Draft goes on to teach that the receiving station shall parse the frame to determine if the message has been fully transmitted. If the message has not been fully transmitted, the receiving station may request transmission of the next segment by transmitting an Acknowledge (ACK2) message. Thus, draft merely teaches that messages may exceed multiple frames. This is admitted by the Applicant in the specification. It is the problem of quickly and efficiently determining the end of such a message that the inventive method of the

instant application addresses. Known methods require maintaining the state of a parsed message pending its completion in multiple frames.

The Office Action admits that Draft does not teach inserting the information contained within the received frame into a data buffer and determining whether the data in the data buffer constitutes a complete message. The Office Action relies upon Kuznicki to teaches these steps. However, Kuznicki is not directed to parsing protocol messages or DSL systems at all. In contrast, Kuznicki teaches a system and method for decoding transmitted fragmented pager messages that spans multiple packets. The messages comprise one or more message packets, each of the message packets comprise an address and a message data payload, wherein the message data payload comprises an indication, in the form of a bit value, of whether more message packets are to be received for the fragmented message. The selective call receiver determines that the fragmented message is completely reconstructed after detection in the decoded message of one of the one or more message packets of an indication that no more message packets are to be received for the fragmented message. Thus, the system of Kuznicki determines the end of messages in a process that is inherently different to that of the claimed invention because the method of Kuznicki (1) requires decoding of each message packet, and (2) looks for an indication in the message data of the current decoded message packet that there are no more message packets for the current message. That is, each message packet contains an indication as to whether or not there are more messages. This is in direct contradiction to the method of claims 1, 6 and 11 of the which inserts data from an incoming message frame into a data buffer and then looks at all data in the data buffer to determine whether a complete message has been received. This will include information from the current frame, but will also include

information from one or more previous frames. In fact, it will always include information from one or more previous frames unless the information from the current frame is the first frame of a multi-frame message. Thus, it is not just the data in the current message packet, but rather the entire contents of the buffer memory which is parsed to determine if the data constitutes a complete message.

The Office Action asserts that Kuznicki teaches the use of a data buffer. However, Kuznicki's explicit discussion of storing messages in buffers is in the context of storing messages in a queue before they are sent out, not after they are received. This buffering has nothing to do with determining whether or not a complete message has been received. The specific portion of Kuznicki relied upon by the Office Action, that is col. 18, lines 43-63, refers to a message block 1912 where decoded messages are stored. Applicant assumes that the Office Action is analogizing this to the data buffer of the claimed invention. However, unlike the method of independent claims 1, 6 and 11, the system of the Kuznicki determines if a completed message has been received before the data is stored in the message block. That is, the determination is performed on each message packet rather than on the entire concatenated message stored in memory.

The Office Action erroneously states that Kuznicki teaches checking the completeness of the message in the message block 1912. However, as discussed above, Kuznicki does not check the contents of the message block to determine completeness. Rather, he checks each decoded message before putting the message in the message block 1912. In the system of Kuznicki, the information needed to determine whether the message is complete is obtained from the current message packet rather than the entire contents of the message block. Therefore, independent

claims 1, 6 and 11 are patentable over the combination of Draft and Kuznicki for at least these reasons.

Regarding dependent claims 2, 7 and 12, Applicant respectfully submits that the combination of applied references fails to disclose or suggest the additional steps of receiving a next message from the remote ATU sent in response to the continuation message, concatenating the information contained within the next message frame onto the data within the data buffer, determining whether the concatenated data in the data buffer constitutes a complete message, sending a continuation message to the remote ATU if it is determined that the concatenated data in the data buffer does not constitute a complete message, and extracting the complete message from the data buffer if it is determined that the concatenated data in the data buffer does constitute a complete message, as recited by each of these claims.

As discussed above, Kuznicki does not concatenate information contained within a subsequent message frame onto the data in the data buffer and then determine whether the concatenated data in the data buffer constitutes a complete message. Instead, Kuznicki looks at each incoming message, and after decoding the message, looks for an indication in the message that more messages are coming. Therefore, claims 2, 7 and 11 are patentable over the combination of applied references for at least this reason.

Regarding dependent claims 3, 8 and 13, Applicant respectfully submits that the combination of applied references fails to suggest or disclose that the step of determining whether the data in the data buffer constitutes a complete message further comprises the steps of counting a number of parameter and sub-parameter bits within the data buffer, and matching the

number of parameter and sub-parameter bits to a number of delimiting bits contained within the data buffer, as recited in each of the claims.

The Office Action relies upon § 9.2.3 of Draft to teach this feature. However, § 9.2.3 merely discusses parsing parameter and sub-parameter bits. Such parsing is necessary to interpret instructions under any scheme for handling multi-frame instructions. Nowhere in Draft is there disclosure or suggestion of the specific step of counting a number of parameter and sub-parameter bits within the data buffer, and matching the number of parameter and sub-parameter bits to a number of delimiting bits contained within the data buffer. The Office Action takes the unfounded position that because Draft makes mere mention of delimiting bits, parameter bits and sub-parameter bits that the specific features of claims 3, 8 and 13 are obvious. The instant invention takes advantage of the fact that that as required by formatting rules provided by the handshaking standards, such as is discussed in Draft, each parameter octet in the information portion of a message includes a delimiting bit, indicating whether the current octet is the last octet in the block to be transmitted. Even assuming *arguendo* that Draft does teach this feature, this demonstrates the inherent incompatibility of Draft and Kuzunicki. As discussed above, the method of claims, 3, 8 and 13, alleged to be taught by Draft, requires counting bits in the data contained in the buffer memory including bits from the current frame as well as one or more previous frames all concatenated together. Kuzunicki, in contrast, looks for a bit in the message data of the current message. Therefore, Draft as characterized by the Office Action and Kuzunicki address the same problem, that is determining the end of a multi-frame message, with differing solutions. Therefore, the combination would be counter intuitive. For at least these

reasons, Applicant respectfully submits that claims 3, 8 and 13 are patentable over the combination of applied references.

Regarding claims 4, 5, 9, 10, 14 and 15, Applicant respectfully submits that the combination of applied references fails to disclose or suggest that the step of determining whether the data in the data buffer constitutes a complete message, further comprises the step of parsing the data buffer to determine its completeness, and the step of extracting the complete message from the data buffer further comprises the step of parsing the data buffer. As discussed above in the context of claims 1, 6 and 11, Kuznicki does not teach parsing the data in the data buffer to determine its completeness. Rather this is determined by decoding the current message packet.

In view of the above-noted distinctions between the claims of the instant application and the applied references, Applicant respectfully requests that the rejection of the claims under 35 U.S.C. § 103(a) be withdrawn.